

# Darth Vader - Black IPA

- Gravity **15.4 BLG**
- ABV ---
- IBU **51**
- SRM **39.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Pilzneński                     | 5 kg (84.6%)   | 81 %  | 4    |
| Grain | Strzegom Karmel 150            | 0.1 kg (1.7%)  | 75 %  | 150  |
| Grain | Weyermann - Dehusked Carafa II | 0.5 kg (8.5%)  | 70 %  | 837  |
| Grain | Biscuit Malt                   | 0.25 kg (4.2%) | 79 %  | 45   |
| Grain | Strzegom Czekoladowy ciemny    | 0.06 kg (1%)   | 68 %  | 1200 |

## Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil    | Centennial | 26 g   | 60 min   | 10.5 %     |
| Boil    | Lomik      | 5 g    | 60 min   | 4 %        |
| Boil    | Challenger | 30 g   | 45 min   | 5.8 %      |
| Boil    | Willamette | 10 g   | 15 min   | 5.5 %      |
| Boil    | Vic Secret | 5 g    | 15 min   | 16.6 %     |
| Boil    | Vic Secret | 25 g   | 0 min    | 16.6 %     |
| Dry Hop | Vic Secret | 21 g   | 4 day(s) | 16.6 %     |
| Dry Hop | cascade    | 38 g   | 4 day(s) | 6.7 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 230 ml | Fermentis  |